Application Number 10/084,884

**REMARKS** 

Our Ref: Q68485

Art Unit: 2633

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority under 35 U.S.C. § 119(a)-(d), and for appearing to confirm that the certified copy of the priority document has been received at the Patent Office.

Applicant notes that the Examiner has not clearly identified (on Form PTO-326) that the certified copy of the priority document has been received. Applicant hereby requests the Examiner do so.

## **Information Disclosure Statement:**

Applicant thanks the Examiner for initialing and returning Form PTO/SB/08 A & B filed on April 10, 2002, thus indicating that all of the references listed thereon have been considered.

## **Specification:**

Applicant has amended the specification, as shown in the previous section, to address the Examiner's concerns. Further, Applicant has added a new Figure 3, and corresponding discussion, in the specification. Applicant submits that no new matter has been added.

#### **Drawings:**

The Examiner has also objected to the drawings under 37 C.F.R. § 1.83(a) indicating that the WDM optical communication system has not been shown in the drawings. Applicant submits herewith a new Figure 3, including corresponding amendments to the written description, to address the Examiner's concerns.

Applicant submits that no new matter has been added, and hereby requests the Examiner reconsider and withdraw the above objection to the drawings.

7

# **Claim Rejections:**

Claims 1-5 are all of the claims pending in the present application, and currently all of the claims stand rejected.

## 35 U.S.C. § 102(a) Rejection - Claims 1-5:

Claims 1-5 stand rejected under 35 U.S.C. § 102(a) as being anticipated by European Reference WO 00/49721 to Grubb. In view of the following discussion, Applicant respectfully traverses the above rejection.

Grubb discloses a Raman amplified communication system coupling at least two polarized pump wavelengths with wavelengths less than the signal into the Raman amplifier.

The pump wavelengths have different polarization with respect to each other.

However, Grubb fails to disclose or suggest that there is a <u>selected</u> different polarization between at least two pump radiation wavelengths. *See* claim 1.

In the present invention a predefined polarization difference is maintained between the pump wavelengths. This is done to reduce the cross talk between the pump wavelengths.

As shown, in Grubb, Figure 4 shows a scheme where  $\lambda 1$  and  $\lambda 2$  are combined through a polarization beam combiner 39. The combiner 39 is followed by a dichroic filter 38 that does not control the relative polarization of  $\lambda 1$  and  $\lambda 2$  with respect to  $\lambda m$ . Thus, it can not be ensured that one pump radiation wavelength has a selected different polarization from the other one. In fact, Grubb indicates that the use of the polarization combiners 39 is for power combination and not for the issue to launch different pump wavelengths with selected different polarization status. Again, in Grubb, the combiner 39 is followed by a dichroic filter 38 that does not control the

Our Ref: Q68485 Art Unit: 2633

relative polarization of  $\lambda 1$  and  $\lambda 2$  with respect to  $\lambda m$ . In such a system, the selection of the polarization status can not be maintained to avoid cross talk effects between the pump wavelengths. The orthogonal polarizations are launched but nothing is done to ensure that the polarization status is maintained through feeding them into the Raman amplifying fiber. As such, Grubb fails to disclose each and every feature of the claimed invention.

In view of the foregoing discussions, Applicant submits that Grubb fails to disclose each and every feature of the claimed invention, as set forth in at least claim 1. Therefore, Applicant submits that Grubb fails to anticipate the claimed invention, as required under the provisions of 35 U.S.C. § 102(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 102(a) rejection of claims 1-5.

Further, Applicant submits that newly added claim 6 is also allowable, at least by reason of its dependence.

#### Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

9

AMENDMENT UNDER 37 C.F.R. §1.111 Application Number 10/084,884

Our Ref: Q68485 Art Unit: 2633

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: March 29, 2005

AMENDMENT UNDER 37 C.F.R. §1.111 Application Number 10/084,884

Our Ref: Q68485 Art Unit: 2633

# **AMENDMENTS TO THE DRAWINGS**

Applicant submits herewith a new sheet having a new Figure 3 depicted thereon.

Applicant hereby requests the Examiner enter and approve the new sheet.

Attachment: New Sheet showing new Figure 3.